

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A wireless communications device, comprising:

a communication sensitivity checking portion of the wireless communications device configured to check a sensitivity of at least one communications channel used to communicate with an external access point and to ~~output~~ provide a sensitivity signal based on the checked sensitivity; and

a power mode changing portion of the wireless communications device configured to receive the sensitivity signal from the communication sensitivity checking portion and to change a power mode of the wireless communications device between a working mode and at least one sleep mode based on the sensitivity signal received from the communication sensitivity checking portion.
2. (Currently Amended) The ~~apparatus~~ device of claim 1, wherein the power mode changing portion is configured to change ~~a~~ the power mode of the wireless communications device into ~~a~~ the working mode if the sensitivity signal indicates that the communications sensitivity is greater than a predefined reference value, and wherein the power mode changing portion is configured to change ~~a~~ the power mode of the wireless communications device into a

the at least one sleep mode if the sensitivity signal indicates that the communications sensitivity is less than a predefined sensitivity value.

3. (Currently Amended) The ~~apparatus~~device of claim 2, wherein the predefined sensitivity value can be changed by a user.

4. (Currently Amended) The ~~apparatus~~device of claim 2, wherein when the wireless communications device is in the sleep mode, both a transmission portion and a receive portion of the wireless communications device are put in a power down mode.

5. (Currently Amended) The ~~apparatus~~device of claim 2, wherein the power mode changing portion is configured to switch the power mode into a the working mode once a predetermined time period elapses after the power mode has been switched to a ~~the at least one~~ sleep mode.

6. (Currently Amended) The ~~apparatus~~device of claim 5, wherein the length of the predetermined time period varies based on ~~the~~a value of the predefined sensitivity value.

7. (Currently Amended) The ~~apparatus~~device of claim 1, further comprising a data checking portion configured to determine whether data needs to be transmitted to ~~an~~the

Reply to Office Action dated January 12, 2007

external access point and configured to output a data check signal, and wherein the power mode changing portion is also configured to change ~~a~~the power mode of the wireless communications device based on the data check signal.

8. (Currently Amended) The ~~apparatus~~device of claim 7, wherein the power changing mode portion is configured to change ~~a~~the power mode of the wireless communications device into a transmission sleep mode if the data check signal indicates that there is no data to be transmitted, and wherein the power changing mode portion is configured to change ~~a~~the power mode of the wireless communications device into ~~a~~the working mode if the data check signal indicates that there is data to be transmitted.

9. (Currently Amended) The ~~apparatus~~device of claim 8, wherein the at least one sleep mode includes a transmission sleep mode, and when the wireless communications device is in the transmission sleep mode, only a transmission portion of wireless communications device is in a power down mode.

10. (Currently Amended) The ~~apparatus~~device of claim 1, wherein the wireless communication device ~~is~~comprises a wireless local area network (LAN) module.

11. (Original) A wireless LAN module, comprising:
- checking means for checking a communication sensitivity of at least one communications channel;
- switching means for switching a power mode of the wireless LAN module to a power down mode if the checking means determines that a communication sensitivity is less than a predefined sensitivity value, and wherein the switching means is also configured to switch the power mode of the wireless LAN module to a normal mode after a predetermined delay period elapses after the power mode has been set to the power down mode.
12. (Currently Amended) The ~~apparatus~~ module of claim 11, wherein the predefined sensitivity value is approximately 70 percent.
13. (Currently Amended) The ~~apparatus~~ module of claim 11, wherein the switching means is configured such that if the checked communication sensitivity is more than the predefined sensitivity value, a power mode of a transmission block of the wireless LAN module is set to ~~a~~ the power down mode if no data needs to be transmitted by the wireless LAN module.
14. (Currently Amended) The ~~apparatus~~ module of claim 11, wherein if the checking means determines that ~~a~~ the communications sensitivity is less than a first predetermined sensitivity value, the switching means switches the power mode of the wireless LAN module to a

normal mode after a first predetermined delay period elapses after the power mode has been set to the power down mode, and wherein if the checking means determines that ~~a~~the communications sensitivity is less than a second predetermined sensitivity value, the switching means switches the power mode of the wireless LAN module to ~~a~~the normal mode after a second predetermined delay period elapses after the power mode has been set to the power down mode.

15. (Currently Amended) A power management method of a wireless local area network (LAN) module, comprising:

setting up a communications channel of a wireless LAN network;

checking a communications sensitivity of the set channel; ~~and~~

changing a power mode of the wireless LAN module to a sleep mode if ~~the results~~ a result of the checking ~~indicate~~indicates that the communications sensitivity is less than a predetermined sensitivity value; and

changing a power mode of the wireless LAN module back to a working mode after a predetermined delay period expires after the wireless LAN module is set to the sleep mode, wherein if the result of the checking indicates that the communications sensitivity is less than a first predetermined sensitivity value, the power mode of the wireless LAN module is changed back to the working mode after a first predetermined delay period expires, and wherein if the result of the checking indicates that the communications sensitivity is less than a second

predetermined sensitivity value, the power mode of the wireless LAN module is changed back to the working mode after a second predetermined delay period expires.

16-17. (Canceled)

18. (Currently Amended) The method of claim 15, wherein if the result of the checking indicates that the communications sensitivity is greater than the predetermined sensitivity value, the method further comprises:

checking to determine if data must be transmitted by the wireless LAN module; and

changing ~~a~~ the power mode of a transmission block of the wireless LAN module to ~~a~~ the sleep mode if ~~the results~~ a result of the checking ~~indicate~~ indicates that no data must be transmitted.

19. (Currently Amended) A method of setting up a wireless LAN module to achieve power savings, comprising:

attempting to set up a wireless communications channel;

checking to determine if the channel was properly set up;

changing a power mode of the wireless LAN module to a power down mode if ~~the~~ a result of the checking indicates that the channel was not properly set up; and

changing ~~a~~the power mode of the wireless LAN module to a normal mode after a predetermined delay period expires after the power mode of the wireless LAN module is set to the power down mode.

20. (Currently Amended) The method of claim 19, wherein if a communications channel is not successfully set up after a predetermined number of setup attempts are made, the method further comprises:

changing the power mode of the wireless LAN module to the power down mode;
and

changing ~~a~~the power mode of the wireless LAN module to a normal mode after a second predetermined delay period expires after the power mode of the wireless LAN module is set to the power down mode, wherein the second predetermined delay period is longer than the predetermined delay period used after an unsuccessful setup attempt.

Reply to Office Action dated January 12, 2007

21. (Currently Amended) A wireless communications device, comprising:
- a communication sensitivity checking portion of the wireless communications device configured to check a sensitivity of at least one communications channel used to communicate with an external access point and to ~~output~~ provide a sensitivity signal based on the checked sensitivity; and
- a transmission power changing portion of the wireless communications device configured to receive the sensitivity signal from the communication sensitivity checking portion and to change a transmission power of the wireless ~~communication~~ communications device based on the received sensitivity signal. [[.]]

22. (Currently Amended) The ~~apparatus~~ device of claim 21, wherein if the wireless communications device is adjacent to the external access point, a power output level of a RF amplification block can be transmitted at a much lower level. [[.]]

23. (Currently Amended) The ~~apparatus~~ device of claim 22, wherein if the external access point is disposed at the adjacent place, if the signal sensitivity is great, a media access control (MAC) controller is controlled using a transmission power control signal so that the MAC controller can change the transmission power of the amplifier to a low level.

24. (Currently Amended) A power management method of a wireless LAN module, comprising:

setting up a communications channel of a wireless LAN network;

the wireless LAN module checking a communications sensitivity of the set channel; and

changing a transmission power of the wireless LAN module based on the checked communications sensitivity.

25. (Currently Amended) The method of claim 24, wherein if the checked communications sensitivity is greater than a predetermined value, then changing the transmission power includes changing the transmission power to a low level.